

First records of the Dumeril's Black-headed Snake *Sibynophis subpunctatus* (Duméril, Bibron & Duméril, 1854) (Reptilia, Colubridae) from Telangana state, India

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Abstract

Of all the Ophidiofaunal diversity in mainland India, some species occurrences are assumed to be rare. The same is the scenario with the underrepresented regions in Telangana state, India. Here we present the first report of the occurrence of the little known colubrid, *Sibynophis subpunctatus* (Duméril, Bibron & Duméril, 1854), from northern and southern forest reserves in Komaram Bheem-Asifabad and Nagarkurnool districts of Telangana. This species' current distribution and natural history are also discussed herein.

Key words

Bejjur Reserve Forest; dry deciduous forest; *Sibynophis sagittarius*; ecology.

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Introduction

Sibynophis subpunctatus (Duméril, Bibron & Duméril, 1854) was originally described as *Oligodon subpunctatum* based on a single specimen collected from “Malabar” in the Western Ghats region of peninsular India (Smith 1935, Captain et al. 2004, Srinivasulu et al. 2014). The genus *Sibynophis* Fitzinger, 1843 is comprised of 9 species distributed in southern and southeastern Asia, of which 3 species, namely, *S. collaris* (Gray, 1853), *S. subpunctatus* (Duméril, Bibron & Duméril, 1854), and *S. sagittarius* (Cantor, 1839) are known from mainland India (Captain et al. 2004, Das 1994, 1997). Earlier, *S.*

subpunctatus was taxonomically confused and has been considered a junior synonym of its northeast Indian congener *S. sagittarius*. Careful re-examination of the type material and of fresh specimens proved that the 2 species are geographically disjunct and morphologically distinct (Captain et al. 2004).

Sibynophis subpunctatus (Fig. 1), commonly known as Duméril's Black-headed Snake or Jerdon's Many-toothed Snake, is a species of non-venomous colubrid endemic to Bangladesh, India, and Sri Lanka (Whitaker and Captain 2004). This species was earlier recorded from Sundipenta in central Nallamalla hills in Kurnool district of the former united Andhra Pradesh (Rao et al.

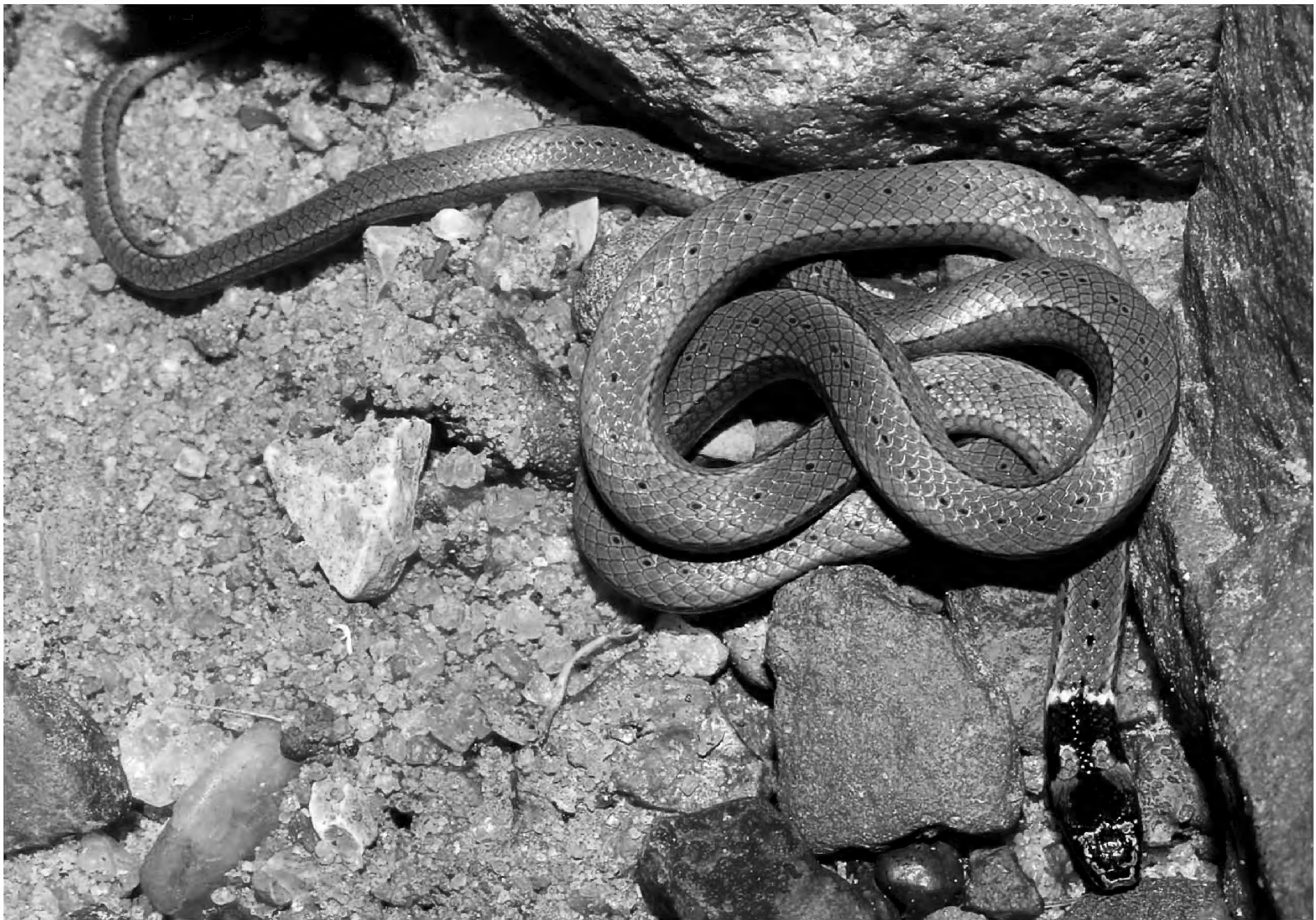


Figure 1. *Sibynophis subpunctatus*, in situ.

2005, Srinivasulu and Das 2008, Srinivasulu et al. 2014). The reptilian diversity of Telangana is underrepresented and has received less attention for study and conservation compared to the relatively better-known Western Ghats (Srinivasulu and Das 2008). To date this species was not documented in Telangana state, India. In this paper, we report the first data on this species presence and provide notes on its natural history.

Methods

Extensive herpetofaunal studies were conducted in Komaram Bheem-Asifabad and Nagarkurnool districts of Telangana, India. During those surveys we encountered individuals of *S. subpunctatus*, Duméril's black-headed snake, (not collected) at Bejjur [19°18' 55.99" N, 079°49'34.59" E; altitude (alt.) 187 m] and Malini (19°29'48.31" N, 079°25'03.87" E; alt. 306 m) in Komaram Bheem-Asifabad district, and at Uma Maheswaram (16°22'28.35" N, 078°43'33.54" E; alt. 501 m) in northern Nallamalla hills, Nagarkurnool district (Fig. 2). The distribution map (Fig. 2) was prepared using Arc-GIS (ver. 10.2) (ESRI 2013).

The specimen images along with the head characterization and the habitat photo vouchers were deposited in the Natural History Museum (NHM.OU), collection of the Department of Zoology, Osmania University, Hyderabad, India, with voucher number NMH.OU.REP. PV-1.2015.

Identification

The individuals were photographed and identified based on the characteristics of the dorsal surface of the head, body coloration pattern, 9 supralabials, and 2 anterior temporals (Fig. 3), and approximate total length of about 40 cm following Whitaker and Captain (2004) and Captain et al. (2004). The specimens are observed to be slender-bodied with smooth scales. Body and tail are brown in color, with a series of tiny black dots that run along the mid-dorsal region, and a gradually tapering tail lacking black rings.

Discussion

Sibynophis subpunctatus is a nocturnal and crepuscular species of terrestrial activity, found in a variety of forest habitats, including rainforests, mixed, moist and dry deciduous forests, scrub lands, semi-desert, rocky terrain of both moderate elevation hills, and lowland plains. This species resides in insect holes, under dense leaf litter under the soil, loose soil filled with cavities and cracks, loose roots of plants and is known to prey upon on other small snakes, skinks, and geckos (Whitaker and Captain 2004, Srinivasulu et al. 2014). The habitat in the localities where this species was sighted is dry deciduous forest (Champion and Seth 1968) with dense leaf litter and perineal hill streams (Fig. 4). The predominant tree species found in the locality are *Borassus*

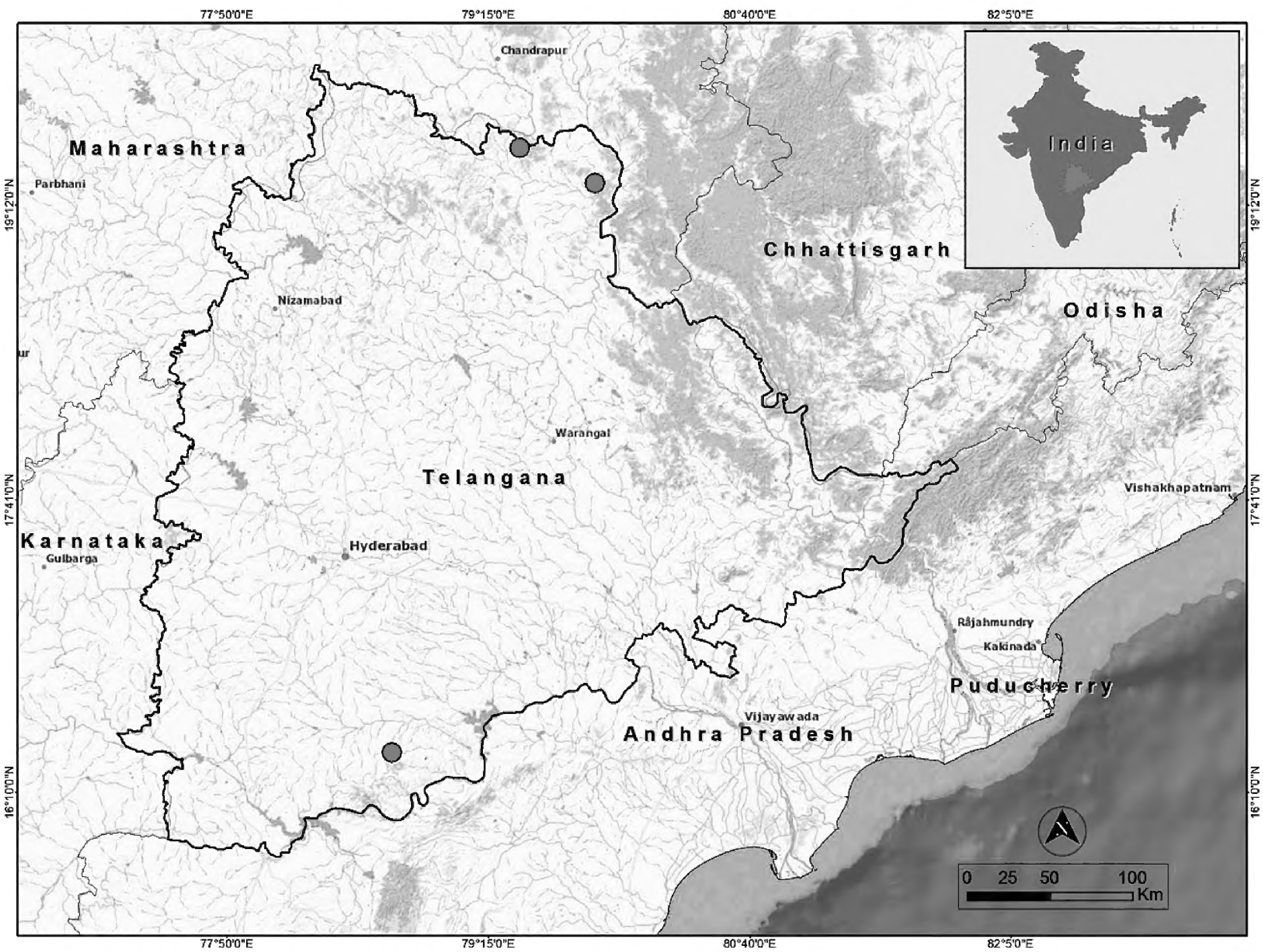


Figure 2. Localities from where *Sibynophis subpunctatus* is known (red circles) in Telangana, India.

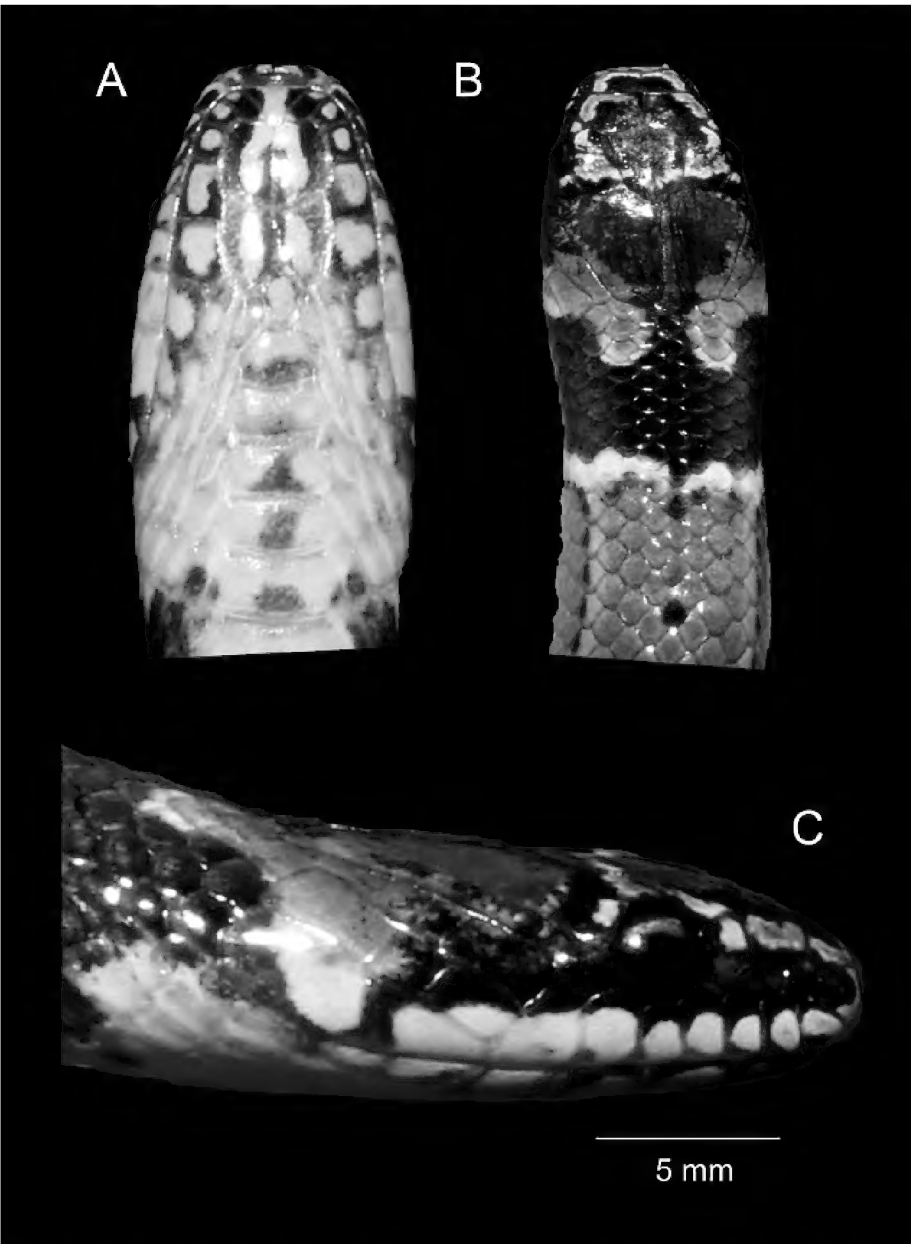


Figure 3. Head of *Sibynophis subpunctatus*: **A.** Ventral view. **B.** Dorsal view. **C.** Lateral view.



Figure 4. Habitat of *Sibynophis subpunctatus* at Bejjur reserve forest, Komaram Bheem-Asifabad district, Telangana, India.

flabellifer L., *Ficus benghalensis* L., *Azadirachta indica* A.Juss, *Holoptilia integrifolia* Planch., *Tectona grandis* L.f., *Bamboosa arundinace* (Retz.), *Terminalia arjuna* (Roxb. ex DC.) Wight & Arn., *Terminalia tomentosa* Wight & Arn., *Prosopis juliflora* (Sw.) DC. and *Acacia nilotica* (L.) Delile including shrub species, i.e. *Jatropha glandulifera* Roxb. and *Vitex negundo* L. The other sympatric species that were found here are the Fan-throated lizard (*Sitana* sp. Deepak, Vyas and Giri, 2016) and the Indian garden lizard (*Calotes versicolor* Daudin, 1802). Observations on *S. subpunctatus* in Bejjur, Komaram

Bheem-Asifabad district, Telangana showed that the species is typically serpentine in nature with quick locomotion and swimming reflexes. This species is most likely under threat due to its misidentification with the venomous Slender Coral snake (*Calliophis melanurus* Shaw, 1802) (Whitaker and Captain 2004).

The recent sightings of *S. subpunctatus* from hitherto unknown locations indicates the need for further dedicated herpetological explorations in Telangana. Further surveys would be helpful in collating information about present day population, diversity, status, and threats to the species and its habitat. This will aid in better understanding and conservation of the Duméril's black-headed snake in Telangana.

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Authors' Contributions

GCK and KKP conducted surveys and collected the data, GCK and CS identified the specimen, KKP prepared the map, and GCK and CS wrote the text.

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